DOCUMENT RESUME

ED 466 738 JC 020 525

| | |
|---|---|
| AUTHOR | Dodge, Lucy |
| TITLE | Success in Institutionalizing Basic Computer Skills Courses at a Community College Level. |
| PUB DATE | 2001-00-00 |
| NOTE | 14p. |
| PUB TYPE | Reports - Descriptive (141) |
| EDRS PRICE | EDRS Price MF01/PC01 Plus Postage. |
| DESCRIPTORS | *Access to Computers; *College Curriculum; College Instruction; Community Colleges; *Computer Literacy; Computer Uses in Education; Information Literacy; *Technological Literacy; *Technology Education; Two Year College Students; Two Year Colleges |
| IDENTIFIERS | *San Jose City College CA |

ABSTRACT

This article outlines the development of basic computer literacy skills courses under the auspices of the Title III Grant awarded to San Jose City College (SJCC) of San Jose, California by the United States Department of Education (Grant no. P031A980093, Strengthening Institutions, 1998-2003). The grant has been in effect for 3 years, and grant personnel have completed the objectives and goals outlined in this paper. The nine objectives of the program are as follows: (1) integration of fundamental technology skills courses into the curriculum; (2) training teachers and students in basic computer-related technology skills; (3) development of lab facilities; (4) definition and promotion of a common set of technology skills across the curriculum; (5) assisting faculty in developing curriculum materials; (6) use of local department strategies to support computer use in classrooms; (7) increase of student retention; (8) closing the gap between technology skills of SJCC students and skills required in the current job market in the Silicon Valley; and (9) infusion of technology skills into the instructional backbone of the college. Six technology skills courses, referred to as the Getting Started courses, were developed to promote basic skills information. Various groups of at-risk students piloted the Getting Started program. A learning community proved successful in terms of giving ESL students an introduction to computers. Future goals and activities as well as barriers to be addressed are also included. (NB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 466 738

# Success in Institutionalizing Basic Computer Skills Courses at a Community College Level

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

L. Dodge

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

**Lucy Dodge,**
**Title III Activity Director, CIS Faculty**
**San Jose City College, San Jose, CA.**
**Lucy.Dodge@sjeccd.cc.ca.us**



## Abstract

This article outlines the development of basic computer literacy skills courses under the auspices of the Title III Grant awarded to San Jose City College (SJCC) by the U.S. Department of Education. The Grant has been in effect for 3years and Grant personnel have completed the objectives and goals outlined in this paper. These goals include, among others, assessing basic computer skills, developing staff training programs, and purchasing appropriate computer hardware and software.

## Key Words

Community College, Title III Grant, Basic Technology Skills courses, curriculum

## Problem Statement

Although many college campuses agree that a basic level of information competency is important for students to achieve, there is still considerable disagreement as to the specific elements that constitute information competency. What one college considers adequate knowledge of technology is viewed as minimally acceptable by another college. Furthermore, even if information competency requirements could be standardized, how could we then assess whether or not students reached this level? The criteria for evaluation remain as vague as the standards themselves. Defining information competency has become one of the foremost issues on campuses today. Providing courses that bridge the "Digital Divide" has become big business among colleges.[1] To address this issue, San Jose City College (SJCC), under the auspices of a Title III Federal Grant, designed and offered several courses intended to help students begin the process of learning how to use their computers and subsequently to enhance their developing technology skills.[2]

In spite of the fact that SJCC is undergoing a change in direction from that of a technical training school to an institution that prepares students to transfer to a 4-year college, it is still perceived by many as being a vocationally-oriented community college. Even so, many of the students who graduate or transfer to 4-year institutions still lack the requisite skills to survive at a four-year college level, let alone to obtain jobs in a technologically advanced area. An increasing number of jobs in this area require a high degree of expertise, which students do not possess when they enter the Community College.[3] This paper discusses the implementation and assessment of the Title III Information Technology Grant and perceived barriers to the successful establishment of campus-wide technology standards and their implementation.

TC020525

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

[1] T.H.E. Journal, "Technological Horizons in Education," May 2001, Volume 28, Number 10.
[2] U.S. Department of Education, Grant No. P031A980093, Strengthening Institutions awarded 1998-2003.
[3] See Document ED449848 in ERIC, which enumerates job market availability and research conducted with regard to the community college curriculum.



BEST COPY AVAILABLE

The goals of the Title III Grant also coincide with those of the Partnership for Excellence (PFE) program as stated by the California Community Colleges Chancellor's Office. [4] The PFE state-wide program goals include increasing the following:

1. Overall rate of successful course completion from 68% to 70%, including transferable, vocational, and basic skills courses; and
2. Number of students completing coursework at least one level above their basic skills level where they were when they first enrolled at the college. [5]

According the Chancellor's Office Management System (COMIS), successful course completion means that a student received a grade of A, B, C, or CR. For reporting purposes, enrollment data was collected during the academic year beginning in summer and ending in spring.

Basic skills are defined as either precollegiate basic skills or simply as basic skills in the following areas:

1. Math - arithmetic skills in using percents, fractions, and decimals,
2. Reading - the ability to find main ideas and in simple passages, identify relevant details, and use new vocabulary in sentences,
3. Writing - the ability to write simple, compound, and complex sentences.[6]

One of the beneficial tangential effects of the Title III Grant is to increase the likelihood that these goals are accomplished on the SJCC campus thereby meeting the goals of the Chancellor's Office in terms of increasing student success by enabling students to enroll in a class one level higher than the one they enrolled in initially: [7]. This data for the Title III students is currently being collected for the year 2001 to 2002. After the data is compiled, the Title III Web Site at www.sjcc.edu/title 3 will display the results of these studies showing overall success rate.

## What are Title III Grants?

The Grants are awarded as part of the Strengthening Institutions Program, U.S. Department of Education, Title III Grant funding for years 1998 to 2003. Administered by the Office of Institutional Development and Undergraduate Education Service of the US Department of Education, Title III Grants:

- Support improvements in educational quality, management, and finance
- Provide funds to institutions of higher education to strengthen academic quality

## What are the Goals and Objectives of the SJCC Strengthening Institutions Grant?

The Title III Grant defined the following technology-related goals for the campus designed to enhance the quality of technical and computer education provided on campus:

1. Integrate fundamental computer technology courses into the college curriculum
2. Train teachers and students in basic computer-related technology skills
3. Develop lab facilities where computer skills can be consistently practiced and reinforced
4. Define and promote a common set of technology skills across courses and programs
5. Assist faculty in developing curriculum materials

---

[4] See the Web Site at www.cccco.edu/cccco/mis/techlib/ded/ded.htm for PFE documents including the *PFE Report specifications*.

[5] PFE Report Specifications prepared by the Management Information systems and Program Support Unit of Policy Analysis and Management Information Services Division, Chancellor's Office, California Community Colleges, Sacramento, CA, 1999.

[6] See the 2000-2002 San Jose City College catalogue where the prerequisite levels are defined. pp. 73-4.

[7] The taxonomy of course codes and levels is defined in the *Taxonomy of Programs,* Version 5, available on the Chancellor's Office Web Site at www.cccco.edu/cccco/mis/techlib/data/top/abouttop.txt

6. Use local department strategies to support computer use in classrooms
7. Increase student retention so that students remain to complete certificate or degree programs
8. Close the gap between technology skills of SJCC students and skills required in the current job market in Silicon Valley
9. Infuse technology skills into the instructional backbone of the institution

## How are these Goals Being Implemented?

Over a period of three years, the Title III technology goals have been implemented in the following manner:

**Objective 1: Integrate fundamental Technology Skills courses into the college curriculum**:

- Six technology skills courses, referred to as the Getting Started courses, were developed to promote basic computer information skills. Students could enroll in these courses at any time during the semester. If they attended a 4-hour orientation session, spent 20 hours in the computer lab by arrangement, and completed the training workbook, they received .5 unit credit for the class. They were provided training manuals, student record sheets, and a CD containing a multimedia presentation of the course materials. The materials were also available via the Web should students wish to access data from elsewhere than on the campus. See Table 1 for a complete list of existing and proposed technology skills courses as well as a detailed list of the contents.
- Various groups of "at-risk" students in Gateway and Adelante programs piloted the Getting Started courses. The Adelante program is an academic program that provides a supportive environment that encourages students to achieve their career goals with the personal attention of counselors and peer tutors.[8] The Gateway program offers personal guidance and mentoring to students who meet federal guidelines for eligibility such as low income, disability, or parents who have not graduated from a four-year college.[9] The students computer skills were assessed at the beginning and the end of the courses. The results of the surveys indicated significant improvement in their level of competence and confidence in the use of computers. See the Title III Web site for detailed information about the results of these surveys. The Title III courses are offered to Adelante peer mentors who provide instruction to the 80 – 100 Adelante students who enroll each semester.
- A Learning Community (Spring 2001) consisting of English as a Second Language (ESL) 322 and CA 302, CA 303, and CA 306 proved successful in terms of giving ESL students their first introduction to computers. Students enrolled in this Learning Community learned about computers and, at the same time, studied the technical vocabulary associated with the computer field. Students enrolled in the ESL component of the Learning Community had an opportunity to write about issues associated with computers. It is hoped that this experience will help students to improve their writing abilities in the technical fields. Judging from the WST (Writing Skills Test) results, more of these Learning Community students for whom English was not their primary language passed the WST.[10] (WST is a prerequisite to enrolling in the required Junior Level Writing course and other upper division GE courses at SJSU. ) Given the current emphasis

---

[8] Adelante, which means "to advance into the future" in Spanish, offers transfer assistance, career guidance, tutoring, and peer mentoring to at-risk college students.

[9] The Gateway program, a federally funded program, offers assistance to lower income students who are considered at-risk students who need to build a strong foundation in basic reading, writing, math, and study skills.

[10]. Ziljko Pavic, Associate Director of Testing and Evaluation, SJSU, quoted in SJECCD Academic Performance Indicators, Office of Research and Planning, September, 2001, p.30.

on our transfer student population, this introduction to writing in conjunction with technology should increase the chance that students will succeed in both the academic and vocational areas.

- The Internet and PowerPoint class materials were developed by faculty as specified in the Grant. These classes were proposed, approved by regular College procedures, and initially offered during the fall semester 2001. They continue to be offered, and enrollment has increased each semester. These courses have recently been included in Learning Communities with Chemistry, English and Guidance classes.
- Graphics and Getting Started with PC Hardware –Students who finish the PC Hardware course are eligible to receive a free computer as part of the Computers for Schools program that was started at SJCC a year ago. (The web site at www.pcsforschools.org provides information about this program.).

**Objective 2: Train teachers and students in basic computer-related technology skills**

- Title III personnel were responsible for writing and distributing a training manual describing the software programs available for faculty to use in the Title III labs has been written and distributed. Sessions on training faculty in the use of the computers, scanners, and printers are given each semester so that faculty can use this equipment competently in any of the computer labs on campus.
- Reading and Writing faculty met and agreed as to the software to be ordered and installed on the computers in the Reading and Writing labs. These software packages include Paragraph Punch, Inspiration, Allwrite, Harlem Renaissance and Cuban Culture, among others. Faculty have incorporated the use of these materials into the Adelante, Gateway, and developmental level reading and writing class assignments.
- Instructors of these developmental level classes schedule sessions for their classes to use the Title III labs to gain instruction in the use of the computer and the Internet, particularly to establish e-mail accounts so they can correspond with all faculty, fellow students, as well as anyone else having an e-mail account.

**Objective 3: Develop lab facilities where computer skills can be consistently practiced and reinforced**

- The Grant's flagship lab, referred to as the Technology Skills Center (TSC) was first established in the Summer of 1999. From 1999 to the summer of 2001, three new computer labs have been developed to support the goals and objectives of the Title III Grant. The Technology Skills Center, which is one of the Title III labs, continues to function with more students and classes using the lab each semester.
- The new language Multimedia Lab was created with 25 new computers.
- The Reading and Writing Centers acquired 26 new computers.
- The Math/Tutoring Center acquired 20 new computers complete with office and math software, printer, and scanner.

**Objective 4: Define and promote a common set of technology skills across the curriculum.**

- Entry Level Technology Skills Courses have been institutionalized and included in the schedule of classes. Offered since spring of 2000, these courses are open-entry, open-exit courses for which students receive .5 unit credit. Students can enroll in these courses at any time during the semester as long as they can complete the required 20 hours of lab time required. At least 30 students enrolled in the course each semester including the summer session. The success rate includes 60 to 80% judging from those who completed the course and passed the performance assessment tests. Given the overall completion rate of students at San Jose City College of 17.3%

in terms of full-time students tracked beginning in Fall 1997, this is an above average completion rate for at-risk students.[11]

- On average, 60% to 80% of the students have passed the entry-level Technology Skills courses as judged by pre- and post-assessment tests and by their having received college credit for the course. See the SJCC web site for additional information about these courses and the survey results (www.sjcc.edu/title3 ) Students who are enrolled in various at-risk college programs such as Adelante and Gateway have also enrolled in these Technology Skills courses in increasing numbers each semester.

**Objective 5: Assist faculty in developing curriculum materials**

- Faculty were hired to develop curriculum materials for all of the Getting Started classes, thus enabling them to participate in the design of the course materials.
- Instructors who taught the Getting Started classes were provided with instructional assistants who would assist students in the labs and help instructors with equipment and software configurations.
- A problem solving and analytical skills course is being proposed for Fall, 2002 with the assistance of the math, philosophy, and psychology departments. The proposed course will include objectives and content that reflect the need to teach students how to solve problems in the areas of humanities and science as well as computer information systems. This is intended to be a generic course in how to 1)identify a problem; 2) find the necessary information required to solve the problem; 3) evaluate possible solutions; 4) select the most appropriate solution for a given context. This course is being developed with the cooperation of math, philosophy, and reading instructors as well as the computer information systems faculty. As designed currently, this course will incorporate portions of the guidelines promulgated in the Information Competency Plan for the California Community Colleges. Students will learn how to search for information and distinguish between relevant and irrelevant information necessary to solve problems.
- An advanced Microsoft Word documentation and formatting course will be offered in the Fall, 2002. This course will teach students how to follow instructions when designing a template for various documents, including resumes, memos, form letters, etc. The course will incorporate reading and writing skills into a basic technology skills curriculum.

**Objective 6: Use local department strategies to support computer use in classrooms**

- The instructional materials have been distributed via CD and workbooks. These have been available to students and instructors, many of whom bring their classes to the TSC for training in how to use Windows, Word, and the Internet.
- The ESL classes have been linked with the Technology Skills classes to offer a Learning Skills curriculum to students. The ESL instructors use course materials that reinforce the use of computers and vice versa.

**Objective 7: Increase student retention so that students remain to complete certificate or degree programs**

- Students participating in the Technology Skills courses 3 (CA 305, Getting Started with PowerPoint) and 4 (CA 306, Getting Started with the Internet) have increased and of those who remained enrolled throughout the semester, 100% passed the courses. They were given a pre- and post-assessment test to determine their level of competency.

---

[11] Academic Performance Indicators, Office of Research and Planning, San Jose Evergreen Community College District, September, 2001, p.5.

- Students who have participated in courses 3 and 4 (including faculty and staff) have used their skills to complete academic course work. At least 90% of the students, who have learned to use the Internet, regularly use e-mail accounts to send information to their instructors and use the Internet to research information for their college papers.
- At-risk students such as those enrolled in the Adelante and Gateway programs have remained in school and continued their education as a result of having gained not only computer skills but a sense of confidence in their learning abilities. Specifically, those students who are enrolled in Learning Communities combined with Technology Skills courses or who begin one of the .5 unit Technology Skills courses tend to remain in school and continue to take other Technology Skills courses. This result is partially due to their learning basic technology skills in a non-threatening, self-paced environment such as that provided in the Technology Skills Center. The SJECCD Office of Planning and Research is in the process of tabulating data that compares retention and success (in terms of receiving credit for a course) between those at-risk students enrolled in Technology Skills courses and those who are enrolled simply in a course that expects them to use computers but provides no explicit training in the use of the technology.
- Although we have the statistics for the number of students who have enrolled in our Technology Skills courses, we are in the process of obtaining comparative data so that we can determine the persistence of at-risk freshman and the decrease in attrition of at-risk freshmen.
- Because curriculum materials are offered at no expense to the students, many students on financial aid and other at-risk members of our diverse student population are able to take the classes without additional expense of having to purchase expensive textbooks.

**Objective 8: Close the gap between technology skills of SJCC students and skills required in the current job market in Silicon Valley**.

- Many industries and institutions (hospitals and other colleges) throughout Silicon Valley have been sending their employees to our courses because of the flexible, open-entry class schedule and the emphasis on basic computer skills.
- Students receive certificates indicating that they have completed the required course materials. Such certificates can be added to their employment portfolio when seeking to upgrade their job classification. In addition, many students who are receiving financial assistance or are enrolled in the disabled students' program can use these certificates when they apply for jobs. Even if they do not find employment immediately, they have solid evidence of having completed what may be their first computer course. To them, this satisfaction may be worth more than having been immediately hired in a job requiring the use of computers.

**Objective 9: Infuse technology skills into the instructional backbone of the institution**

- All SJECCD faculty and staff are required to attend a Professional Instructional Improvement Day (IID) each semester. At this time, short sessions in using Windows, PowerPoint, and the Internet have consistently been part of the IID and have been well attended. Curriculum materials developed in conjunction with the Title III Grant and Technology Skills courses have been used for these sessions.
- The Technology Skills courses in Windows, Word, Internet, PowerPoint, Excel, and Graphics are offered to faculty, students, and staff for them to receive 1/2 unit credit. After having taken these courses, faculty can apply to the Staff Development committee to have these courses approved for professional development credit.
- The Getting Started Title III training workbooks are available to faculty and staff via CDs and are available for downloading from the Title III Web Site that's available from the College home web page. The training manuals are available to lab staff, who attend training sessions on using

the computers, installing software, and helping students use software related to their fields of study.

## Future Goals and Activities

1. A problem solving and analytical skills course is being proposed for Fall, 2002 with the assistance of the math, philosophy, and psychology departments. The proposed course will include objectives and content that reflect the need to teach students how to solve problems in the areas of humanities and science as well as computer information systems. This is a non-discipline specific course in how to 1) identify a problem; 2) find the necessary information required to solve the problem; 3) evaluate possible solutions; 4) select the most appropriate solution for a given context. This course is being developed with the cooperation of math, philosophy, and reading instructors as well as the computer information systems faculty. As designed currently, this course will incorporate portions of the guidelines promulgated in the Information Competency Plan for the California Community Colleges status report.[12]
2. An advanced Microsoft Word documentation and formatting course will be offered within the year. This course will teach students how to follow instructions when designing a template for various documents, including resumes, memos, form letters, etc. While not a full-fledged writing course, the Getting Started with Writing course will use software, such as Inspiration, to teach students how to think creatively and organize their ideas into a logically meaningful sequence of events. Upon completing the course, students will know how to add a table of contents and index to a MS Word document.
3. Next year, a basic web page design course covering how to create a simple web site will be offered. In addition to web design strategies, the course will cover audience requirements for accessibility. Copyright issues and web design strategies will also be part of the curriculum.
4. Additional goals to be implemented within the next 2 years include:
   - Increase collaboration between classroom and self-paced basic skills offerings by sharing the use of instructional technology more widely throughout the campus community.
   - Balance and maintain equipment and software inventories in labs serving the same populations or having the same functions.
   - Train lab aides in the use of new technology.
   - Adopt instructional methodologies proven successful to disadvantaged students, especially those involving the use of technology.
   - Adopt a common set of accounting and budgeting procedures that permit transfer of information from one department on campus to another.

## What are the Barriers to Success in Completing Technology Training Courses?

Two areas of barriers to success in completing technology training have been identified. The Grant attempted to remove these barriers by implementing the aforementioned activities.

1. **STUDENT BARRIERS** that the Grant addresses include the following:
   - Poor access to relevant student information
   - Insufficient lab space
   - Students who are single parents with young children
   - Dependence on public transportation

---

[12] The Information Competency Plan for the California Community Colleges Status Report, 8.4. Board of Governors, California Community Colleges, September, 20000.

- Difficulty in finding the time to work and attend school
- Lack of motivation and low self esteem
- Poor study skills and time management
- Lack of knowledge about college survival skills
- Limited number of college role models at home

2. **INSTITUTIONAL BARRIERS** that the Grant addresses include the following:
   - Lack of support for expanding space and staff and equipment maintenance
   - Lack of consistent implementation of technology
   - Ineffectual or restrictive scheduling patterns
   - Unfocused staff development
   - Outdated graduation and transfer requirements
   - Lack of effective responsiveness to student and staff needs
   - Scarce resources to fund new initiatives
   - 110
   - Freshmen unprepared for college course-work
   - No centralized resource designed to facilitate use of instructional technology

## Employment Information that supports the need for Basic Technology Skills

### Job Market Analysis

According to the Information Competency task force study by the State of California, "Students must learn how to acquire, manage, and analyze large quantities of information…At the same time, the basic reading, writing, speaking, listening, and computational skills will continue to be at the core of both transfer and occupational instruction…"[13] This initiative further led to the publication of the "Information Competency Plan for the California Community Colleges, status report in September, 2000. In this report, information competency was listed as a priority and awarded a Grant to Gavilan College to conduct a study between 1997 and 1998. The report recommended changes in 5 areas, including:

- A collaborative environment, articulation, and matriculation
- Technology infrastructure support
- Course development and changes in degree requirements

Impacted areas would include learning skills, occupational education, of which our Getting Started classes form a part. The goal is to improve the abilities of students to find information and solve problems in the realm of technology. Although technological competency is a subset of information competency, the two are tightly integrated because of the need to use technology to find and analyze information. The goal is now to student how information competency skills can be built into the curriculum of each course so that the skills are not learned in isolation, but have practical applications. In fact, this priority has been incorporated into the 2001-2001 Budget Change Proposal for the Technology II Strategic Plan for the California Community Colleges.

The key skills students must be able to demonstrate include

- State a research question, problem, or issue

---

[13] The New Basic Agenda, Policy Directions for Student Success, Board of Governors, California Community Colleges, 1996.

- Determine what type of information is required
- Use the necessary tools to find the information
- Organize, analyze, and evaluate information
- Communicate the information using various technological resources
- Understand ethical and legal issues surrounding information
- Apply the information gathering and analysis skills to a variety of situations throughout life[14]

The taskforce proposed that these skills be introduced in the freshman year, included in general education courses, and reinforced in each course in specific majors.

According to the Information Competency Taskforce, these changes may also impact sections of the Title V Grant involving standards and criteria for courses and classes (55002); Philosophy and Criteria for Associate Degree (55805); Approval of Credit programs (55130); and EOPS Assessments (56234). Specifically, these changes may influence the establishment of prerequisites and corequisites if demonstrated that a student may need a basic level of competency in English or Math in order to learn the objectives stated by the current course.

Before earning an Associate Degree, the taskforce proposes that a student develop skills that enable them to thank and communicate clearly and effectively both orally and in writing, to use mathematics, and to use effective modes of inquiry to solve problems.

In addition, when new courses are proposed, the relation of the proposed program to the job market should be stated as well as enrollment projections. Thus, students graduating from the program should have a reasonable assurance that the skills learned will enable them to seek a place in the workforce using their current skills.

## Assessment Results and Success Rates

Sample data was obtained from students who participated in pre-and post-tests for the six technology skills courses. All tests contained 25 questions and covered a range of skills such as those illustrated on the following **Getting Started with Windows** Skills Survey that students completed at the beginning and the end of the semester. The survey included 25 items that students rated from A though E. The letters represented the following conditions.

- A means "I have never done this before."
- B means, " I did this task once or twice before."
- C means, " I have done this task several times before."
- D means, "I have done this task many times and feel very comfortable doing this task."
- E means "I am very experienced with this task."

Questions on the Getting Started with Windows survey included, but were not limited to, the following items:

1. Identify and use the controls, such as menus, tabs, scroll bars and toolbars, on the Windows desktop.
2. Use the Windows Menu button to run software programs.

---

[14] Academic Senate for California Community Colleges Counseling/Library Faculty Issues Committee, Information Competency Task Force, January 3, 2000.

3. Use the sizing handle and maximize button to change the size of the current window.
4. Use toolbar buttons to gain quick access to program commands.
5. Identify menu options that lead to submenus.
6. Identify the visual clues that indicate a menu option is not available.
7. Identify the purpose of the three dots and check marks that follow a menu option.
8. Use list box controls to view all possible entries in a list box.
9. Copy a file using the copy option on the right mouse button menu.
10. Run multiple programs at the same time.

The pre- and post-surveys for the Getting Started with Windows (CA 302) course, which were administered in Fall, 2002, indicated the following results according to the SJECCD District Office of Research and Planning:

| | | Total # of responses | "I have never done this before." A = 1 | | "_once or twice before." B = 2 | | "_several times before." C = 3 | | "_many times and feel comfortable." D = 4 | | "I am very experienced with this task." E = 5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | # | % | # | % | # | % | # | % | # | % |
| **Total A-E** | *Pre- (All)* | 1181 | 479 | 41% | 214 | 18% | 180 | 15% | 120 | 10% | 94 | 8% |
| | *Pre-Test* | 450 | 156 | 35% | 89 | 20% | 85 | 19% | 54 | 12% | 33 | 7% |
| | *Post-Test* | 450 | 2 | 0% | 20 | 4% | 59 | 13% | 122 | 27% | 244 | 54% |
| | *% Pts Diff* | | | -35 | | -16 | | -6 | | +15 | | +47 |
| | | | | | A, B, C | | | | D, E | | | |
| **Total A-C and D-E** | *Pre- (All)* | 1181 | 873 | | 74% | | | | 214 | | 18% | |
| | *Pre-Test* | 450 | 330 | | 73% | | | | 87 | | 19% | |
| | *Post-Test* | 450 | 81 | | 18% | | | | 366 | | 81% | |
| | *% Pts Diff* | | | | -55 | | | | | | +62 | |

Figure 1. Summary of Survey Responses

BEST COPY AVAILABLE

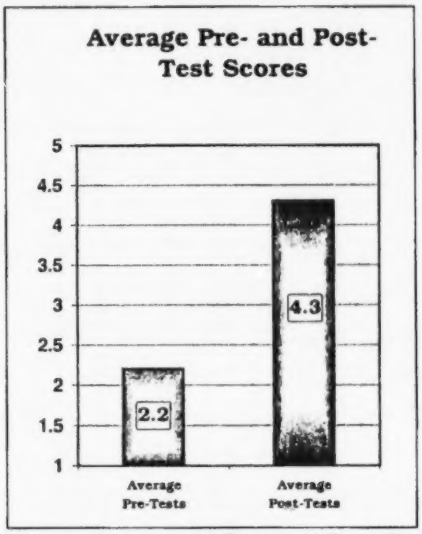

Figure 2. Average Pre- and Post-Test Scores

At the beginning of this class, the average rating for all twenty-five skills was 2.2 (student used these skills once or twice). By the end of the class, the average rating on all twenty-five skills was 4.3 (student used these skills many times and felt comfortable).

At the beginning of the class, on the twenty-five skills, 19% of those who took the pre- and post-test felt comfortable or experienced. By the end of the class, 81% of those who took the pre- and post-test felt comfortable or experienced with the twenty-five skills.

For those who completed the class, the twenty-five skills taught are learned to a comfortable or higher level by 81% of the students. On the other hand, only 450 of 1181 (38%) students tested completed the pre- and post-test. Retaining students seems to be a bigger challenge than training.[15]

## Benefits of this Project

Given the number of programs offering certification in basic information skills, the need for this level of competency is growing not only in California but also throughout the world. Unless we continue to upgrade our students' skills, they will not be able to compete effectively in the workplace.
However, in addition to technical skills, the following general skills have been identified as necessary in order to ensure success in the workplace:

**Active learning**

- Ability to work with new material
- Critical thinking
- Operations analysis and testing
- Equipment selection

**Abilities**

- Written comprehension
- Speech clarity
- Oral expression
- Written expression

These are the tools included in the Community College curriculum and the skills students will gain by completing our Title III Technology Skills courses as we continue to promote these courses and develop new courses following a similar format.

BEST COPY AVAILABLE

[15] Jon Kangas, Vice-Chancellor of Research and Planning, San Jose Evergreen Community College District, Office of Research and Planning, Spring, 2002.

Table 1. Technology Skills Courses and Scheduled Availability

| Course | Description of Course Content | Semester Available |
|---|---|---|
| **Windows CA 302** | • Use the mouse, keyboard, menus, dialog boxes, and icons<br>• Copy, backup, rename, and print files<br>• Store and retrieve information from folders on the hard disk and floppy disks | Fall 1999 |
| **Word Processing CA 303** | • Create and save a document on the hard drive and on a floppy disk<br>• Format text (fonts, font size, alignment, and margins) paragraphs<br>• Use a graphical program to draw an object and import the object into a document | Fall 1999 |
| **Spreadsheets CA 304** | • Create a file to include text, numbers, and formulas<br>• Modify an existing spreadsheet by adding data and formatting fonts<br>• Save and print the spreadsheet making necessary adjustments in size<br>• Copy and move text, numbers, and formulas | Spring 2001 |
| **Presentations CA 305** | • Create, save, and print slides using a PowerPoint template<br>• Create slides and transparencies without using templates<br>• Modify the font, side, color, and content of an existing slide | Fall 2000 |
| **Internet CA 306** | • Access and perform research tasks on the Internet<br>• Copy and save text and graphics from the Internet<br>• Identify copyright restrictions and regulations regarding the use of information from the Internet | Fall 2000 |
| **Graphics CA 307** | • Open, modify, and save files in Photoshop or other Graphics programs<br>• Demonstrate knowledge of file formats and their uses<br>• Use basic graphics tools, including drawing and selecting tools<br>• Scan, modify colors, and print files | Spring 2001 |
| **PC Hardware CA 308** | • See what's inside your computer<br>• Learn to recognize and connect cables to peripherals<br>• Diagnose printer problems | Spring 2001 |
| **Problem Solving CA 96** | • In a given scenario, describe critical problems that need to be solved<br>• Identify a variety of solutions to problems<br>• Describe and analyze events that occur during role playing and simulations | Fall 2002 |
| **Writing Tools To be developed** | • Use software to generate and organize ideas<br>• Use formatting tools such as tables and graphics to develop a classroom presentation or newsletter<br>• Use formatting tools for bibliographies and index entries<br>• Develop a formal document with a table of contents and index | Spring 2003 |
| **Web Page Design To be developed** | • Access educational, corporate, and individual Web pages with links to other sites<br>• Create a simple Web page using a template<br>• Add graphics and links to a Web page<br>• Convert a document from a Word Processing format into an HTML Web page format | Spring 2002 |

## References


- www.schoolcraft.cc.mi.us/leagueproject. Survey results of a collaborative effort between Schoolcraft College and the League of Innovation in the Community Colleges. The faculty and staff of several departments participated in a three-year study supported, in part, by a Grant from the Pew Charitable Trust. The results of the survey help to reinforce the importance of teaching students fundamental communication and reading and writing skills.

- LISTSERV@EDUCAUSE.EDU - Educational digests and reference materials
- LISTSERV@LISTS.PSU.EDU - DEOSNEWS, the Distance Education Online Symposium
- LISTSERV@MAELSTROM.STJOHNS.EDU – Technology and Human Responsibility
- .LISTSERV@LISTS.PSU.EDU - Online Journal of Nursing Informatics
- COMMCOLL@LSV.UKY.EDU – University of Kentucky Community College Discussion Group
- http://icle.net/index.html - International Center for Leadership in Education
- http://www.nccte.org/resources/index.asp - National Dissemination Center for Career and Technical Education

**U.S. Department of Education**
*Office of Educational Research and Improvement (OERI)*
*National Library of Education (NLE)*
*Educational Resources Information Center (ERIC)*

# REPRODUCTION RELEASE

(Specific Document)

## I. DOCUMENT IDENTIFICATION:

Title: Success in Institutionalizing Basic Computer Skills at a Community College

Author(s): Lucy Dodge

Corporate Source: —

Publication Date: —

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☑

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

*I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.*

**Sign here, → please**

| | |
|---|---|
| Signature: Lucy Dodge | Printed Name/Position/Title: Lucy Dodge, Title III Director / CIS Faculty |
| Organization/Address: San Jose City College, 2100 Moorpark Ave., San Jose, CA 95128 | Telephone: 408-298-2181 x3978 FAX: 408-275-9386 |
| | E-Mail Address: lucy.dodge@sjecd.cc.ca.us Date: 5/20/02 |

(over)

## III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, *or*, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

| |
|---|
| Publisher/Distributor: |
| Address: |
| Price: |

## IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

| |
|---|
| Name: |
| Address: |

## V. WHERE TO SEND THIS FORM:

| |
|---|
| Send this form to the following ERIC Clearinghouse: |

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

**ERIC Processing and Reference Facility**
**4483-A Forbes Boulevard**
**Lanham, Maryland 20706**

**Telephone: 301-552-4200**
**Toll Free: 800-799-3742**
**FAX: 301-552-4700**
**e-mail: ericfac@inet.ed.gov**
**WWW: http://ericfac.piccard.csc.com**

EFF-088 (Rev. 2/2000)